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PERP. TO FIN VIEW

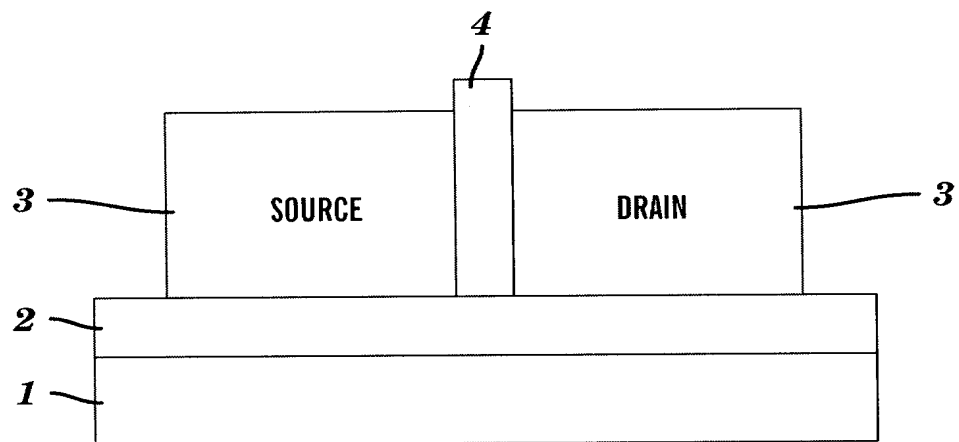


FIG. 1
PRIOR ART

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PARALLEL TO FIN VIEW

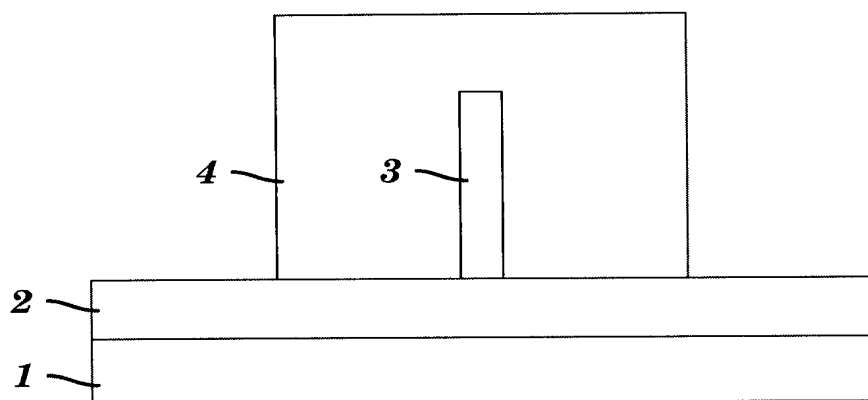


FIG. 2
PRIOR ART

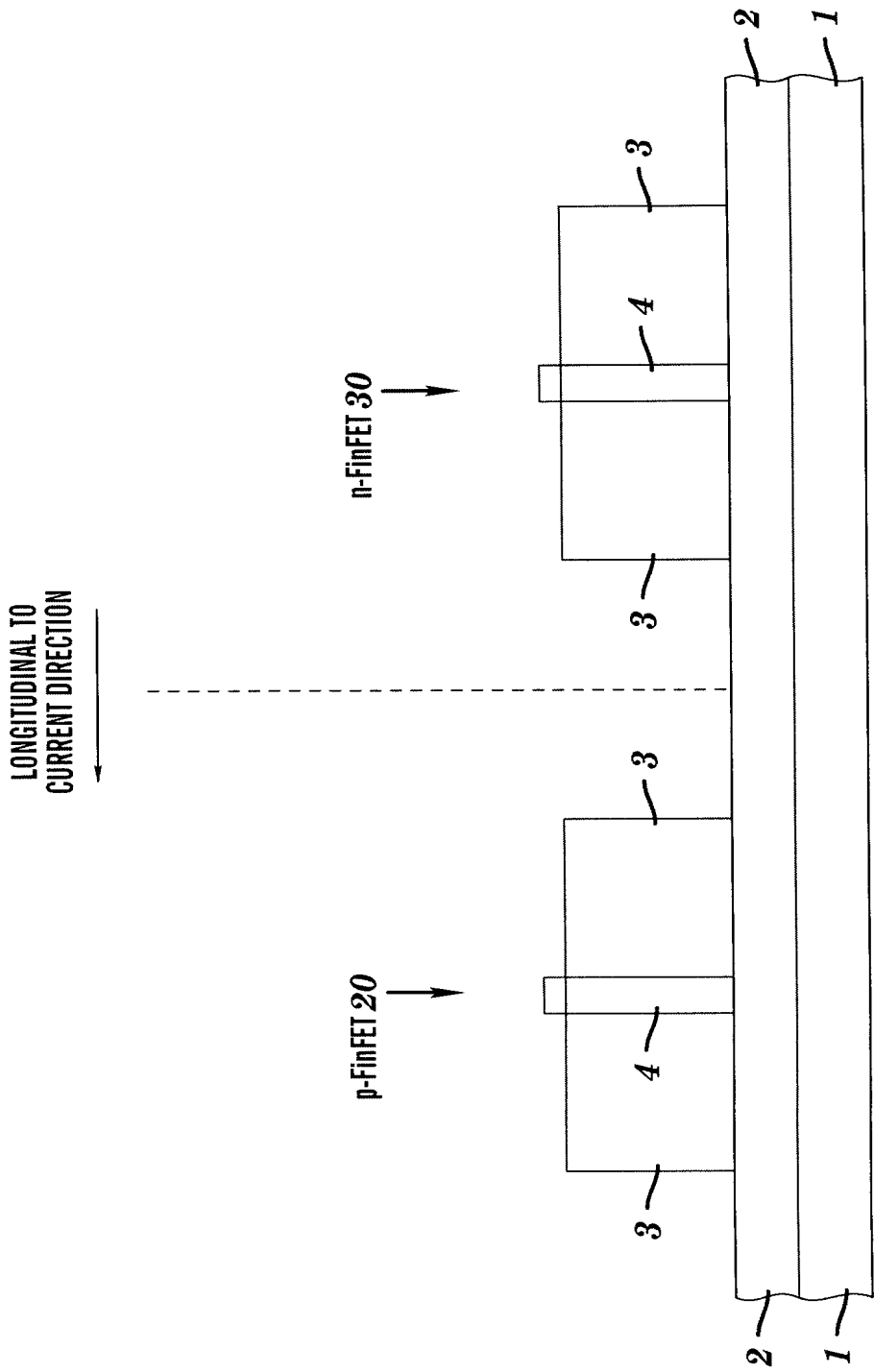


FIG. 3
PRIOR ART

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DEPOSIT THIN SiO₂ LINER

LONGITUDINAL TO
CURRENT DIRECTION
→

PERP. VIEW

p-FinFET

n-FinFET

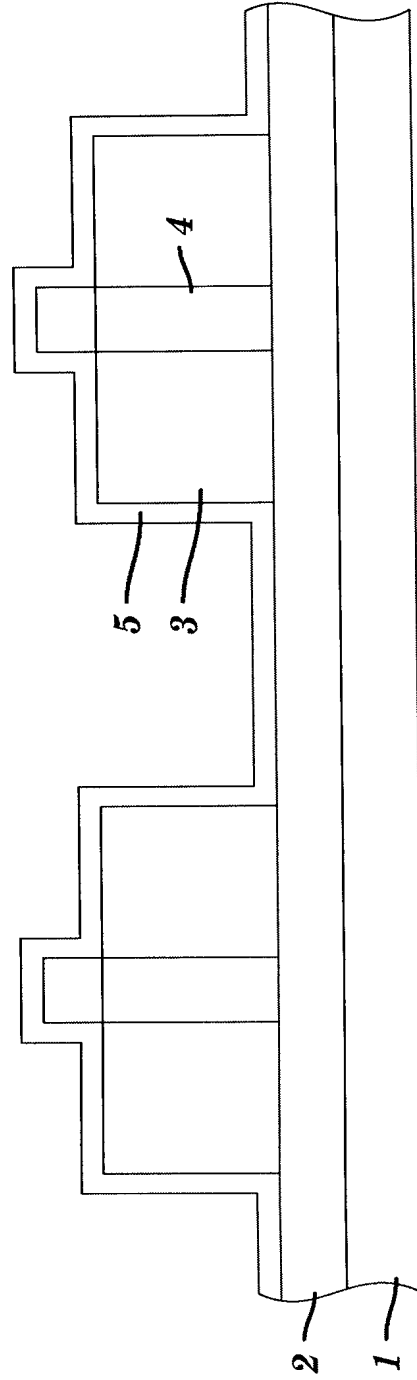


FIG. 4

DEPOSIT THIN SiO₂ LINER

PARALLEL VIEW

p-FinFET

n-FinFET

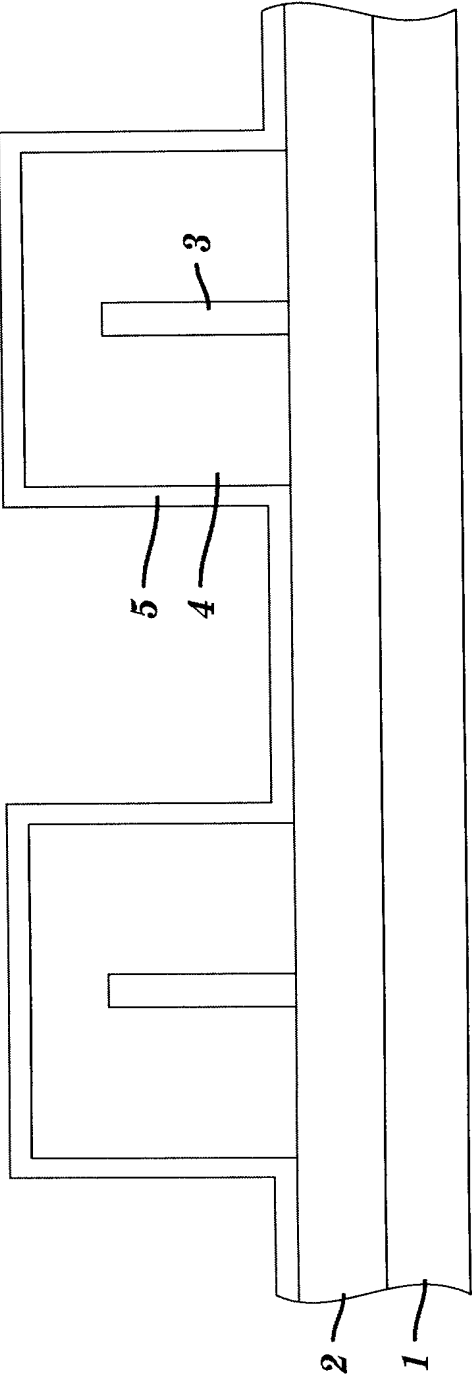


FIG. 5

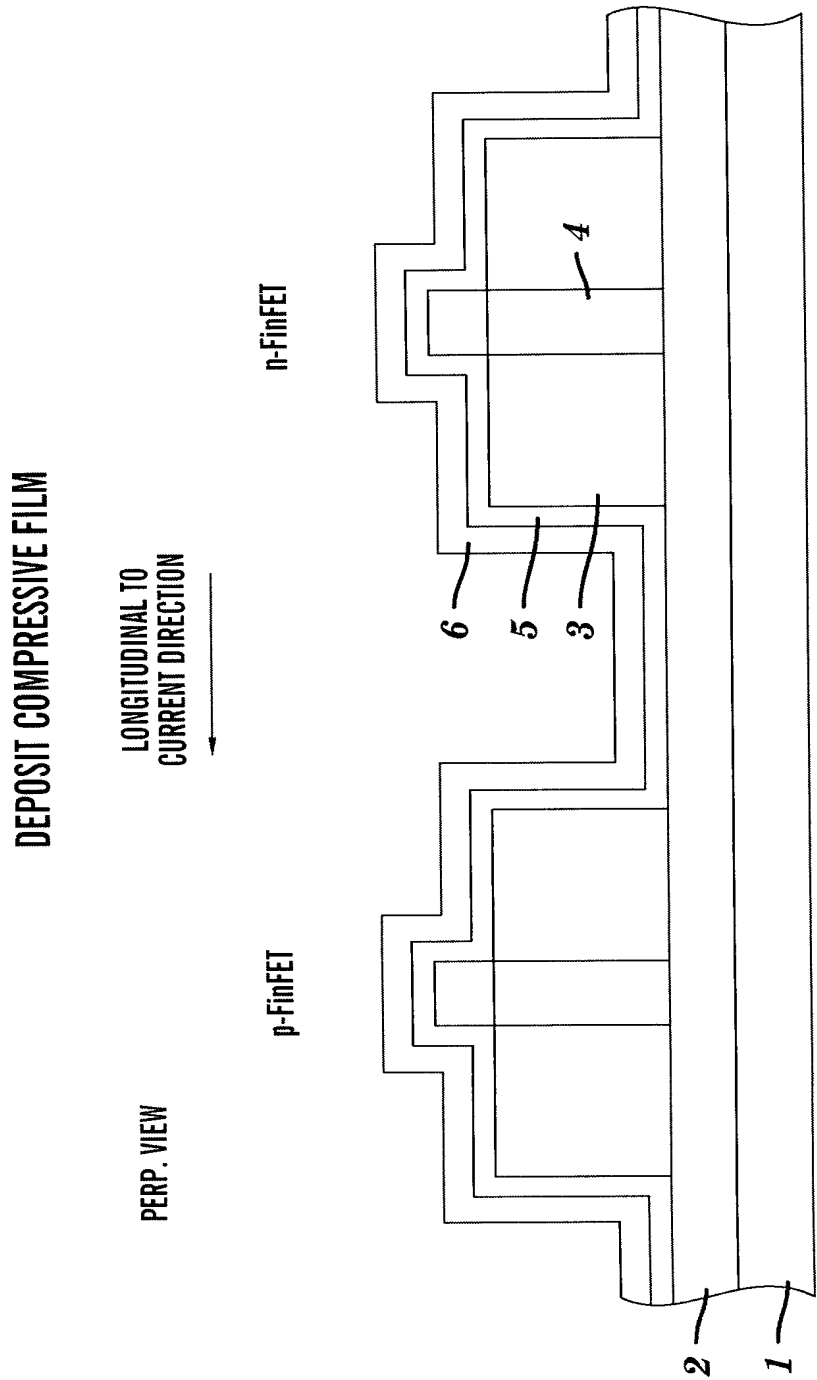


FIG. 6

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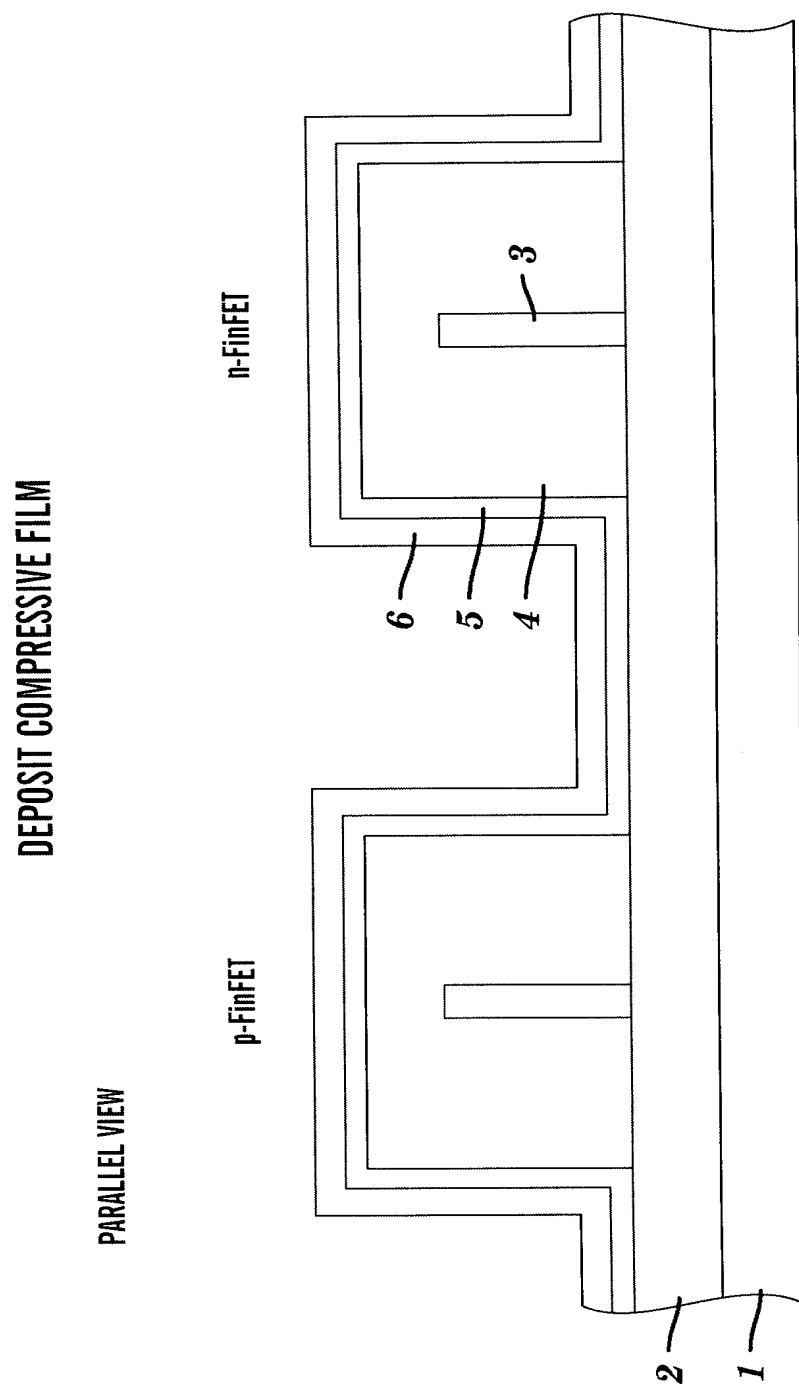


FIG. 7

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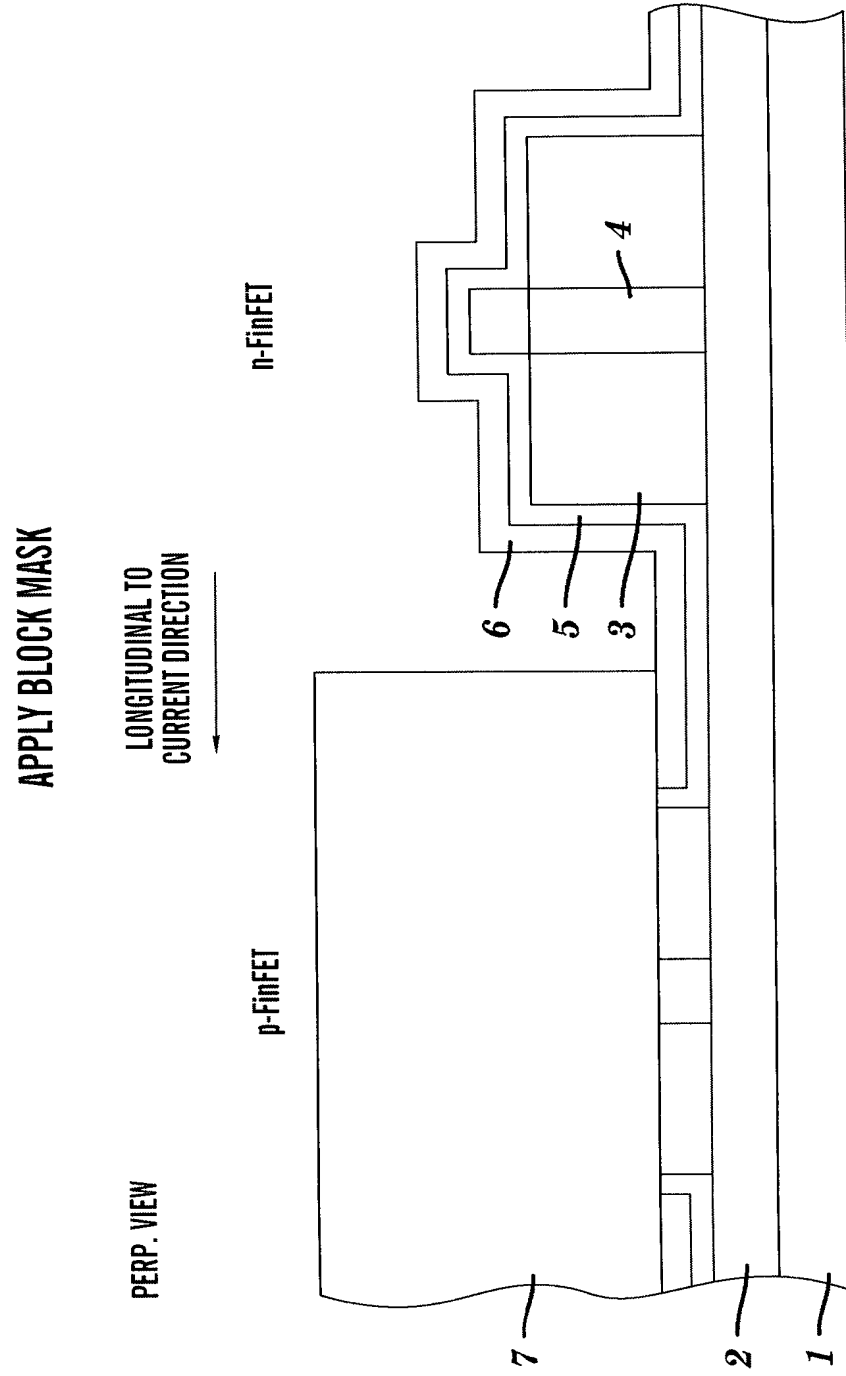


FIG. 8

APPLY BLOCK MASK

PARALLEL VIEW

n-FinFET

p-FinFET

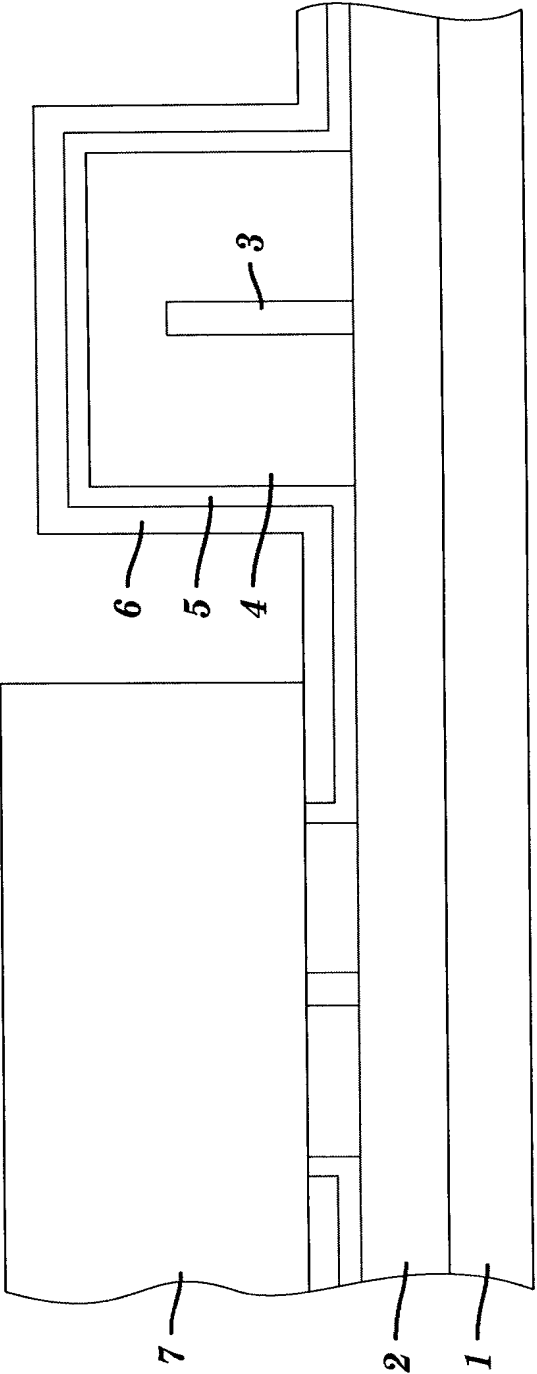


FIG. 9

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REMOVE COMPRESSIVE FILM FROM
n-FinFET STOP ON LINER

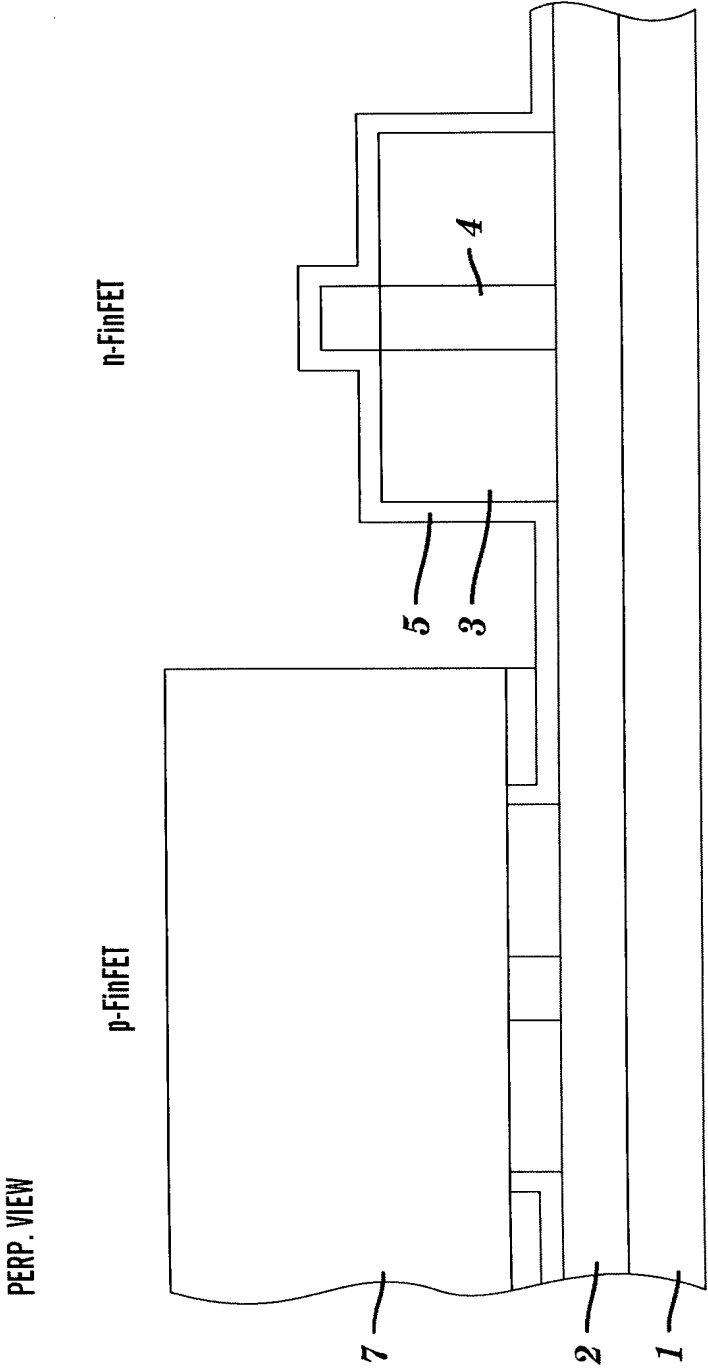


FIG. 10

REMOVE COMPRESSIVE FILM FROM
n-FinFET STOP ON LINER

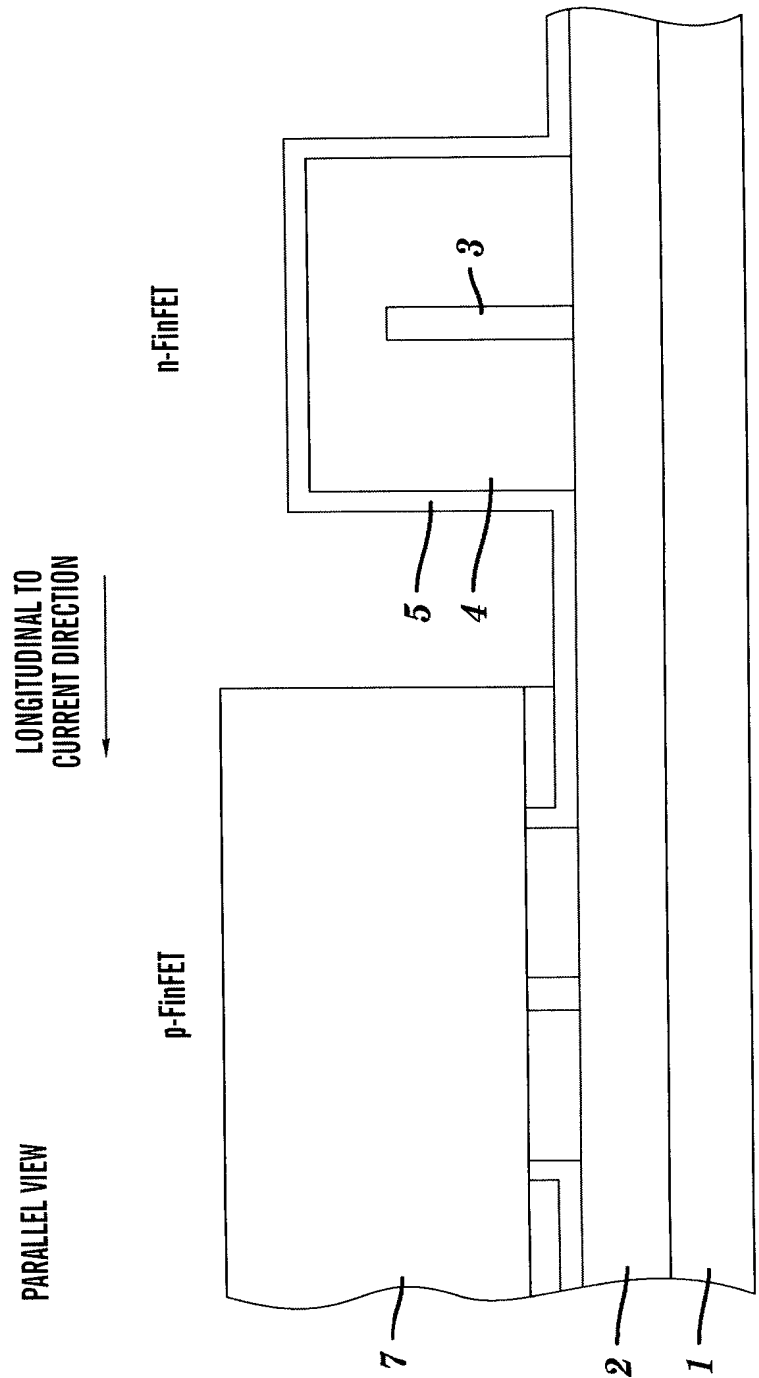


FIG. 11

REMOVE BLOCK MASK, OPTIONAL LINER 1
REMOVAL, DEPOSIT 2ND THIN LINER

LONGITUDINAL TO
CURRENT DIRECTION
↓

PERP. VIEW

p-FinFET

n-FinFET

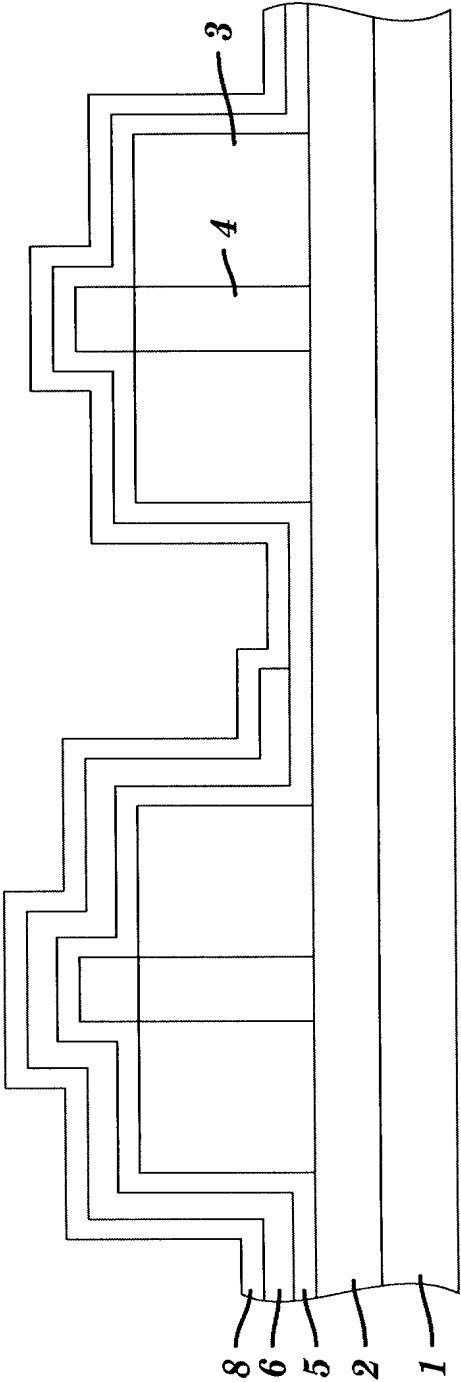


FIG. 12

REMOVE BLOCK MASK, OPTIONAL LINER 1
REMOVAL, DEPOSIT 2ND THIN LINER

PARALLEL VIEW

p-FinFET

n-FinFET

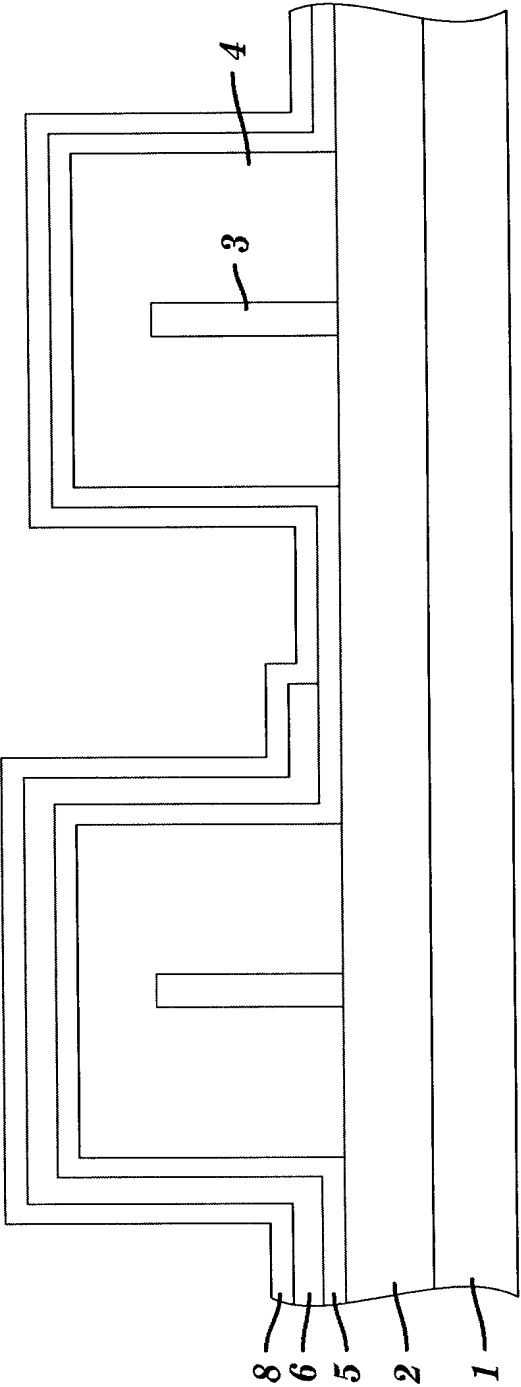


FIG. 13

DEPOSIT TENSILE FILM

PERP. VIEW

LONGITUDINAL TO
CURRENT DIRECTION
↓

p-FinFET

n-FinFET

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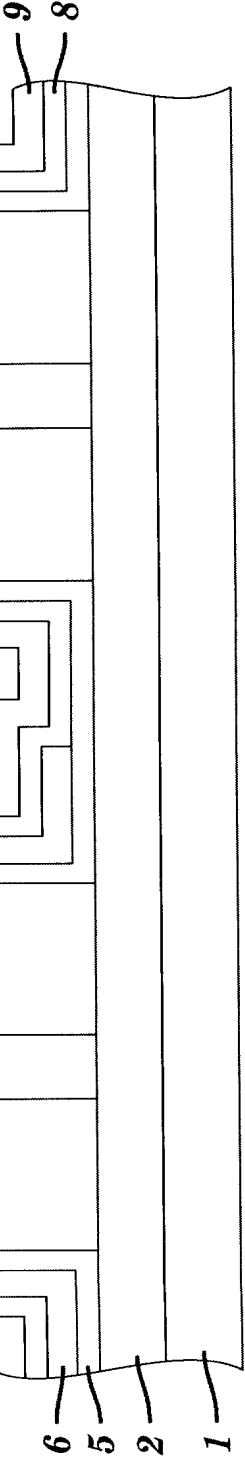


FIG. 14

DEPOSIT TENSILE FILM

PARALLEL VIEW

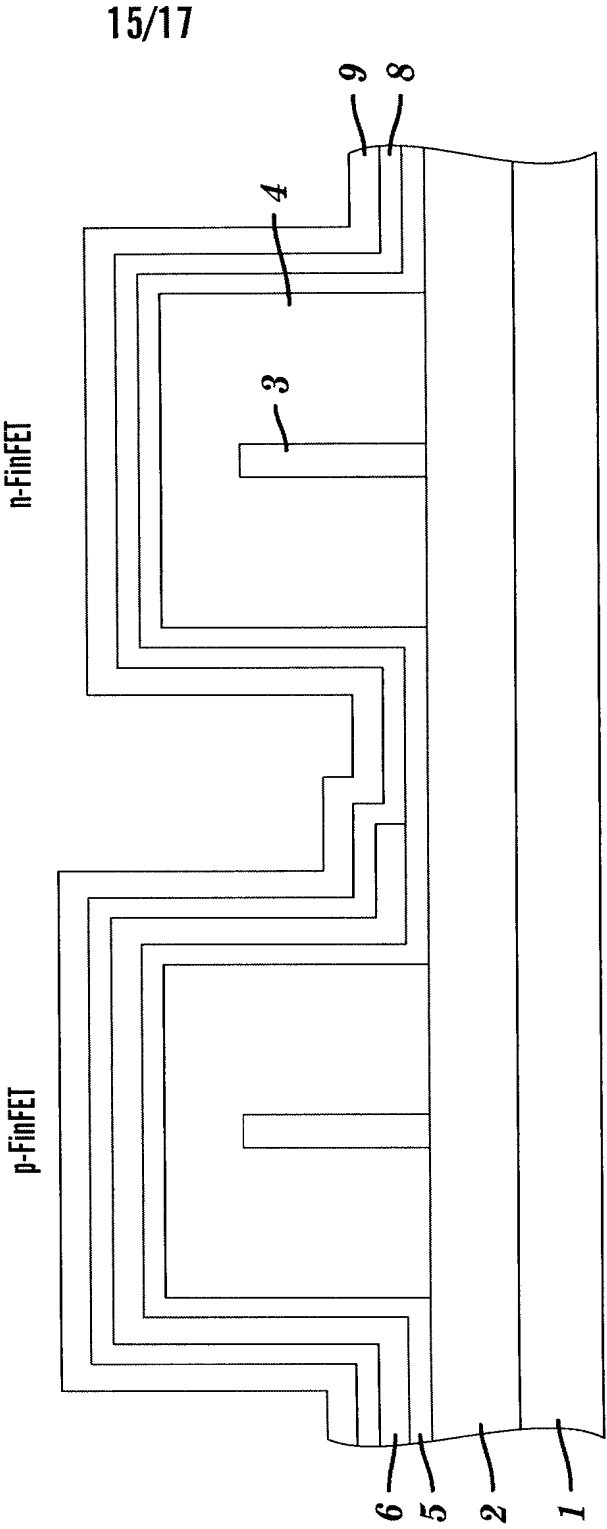


FIG. 15

APPLY BLOCK MASK AND REMOVE TENSILE
FILM FROM p-FinFET

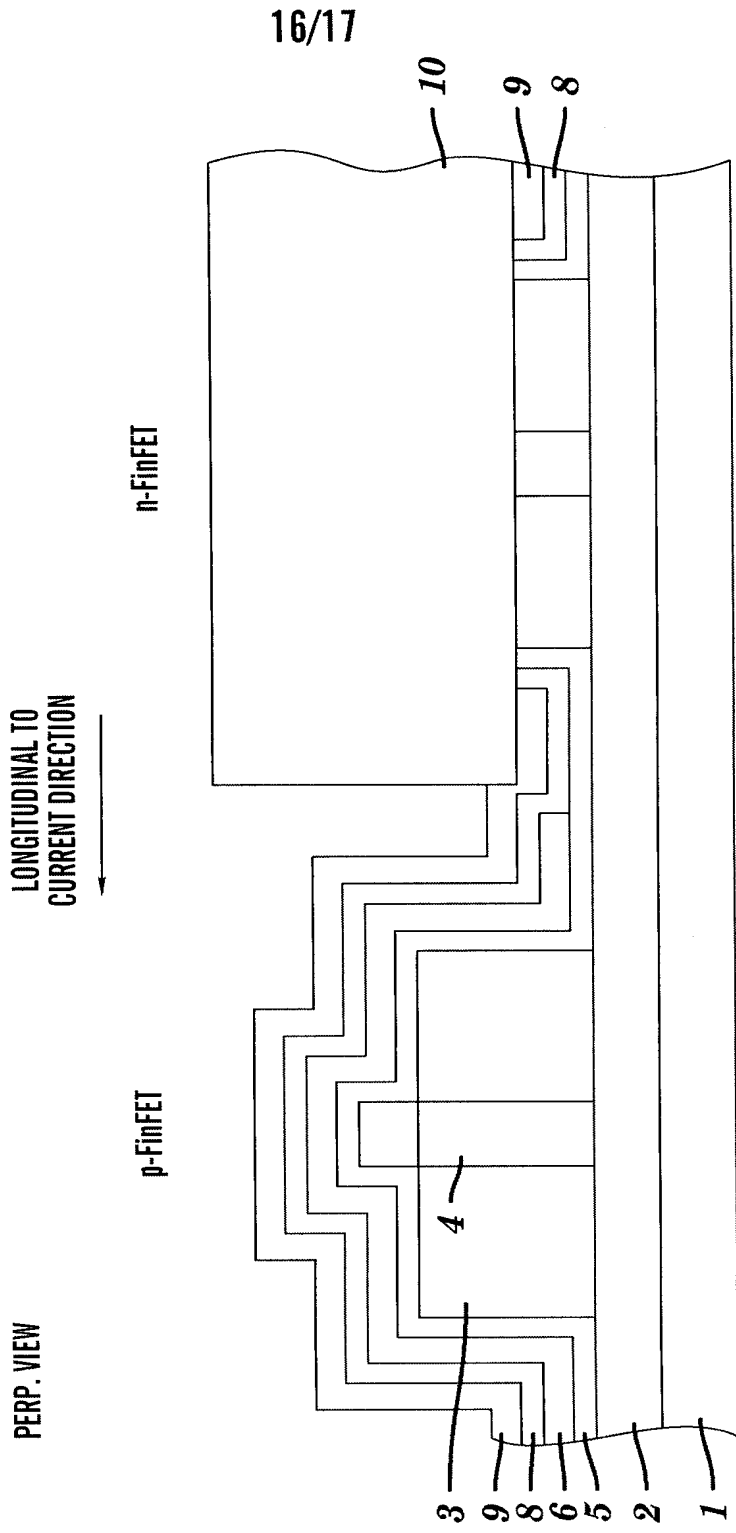


FIG. 16

APPLY BLOCK MASK AND REMOVE TENSILE FILM FROM
p-FinFET, REMOVE BLOCK MASK
FINAL DEVICE STRUCTURE

PARALLEL VIEW

p-FinFET 200

n-FinFET 300

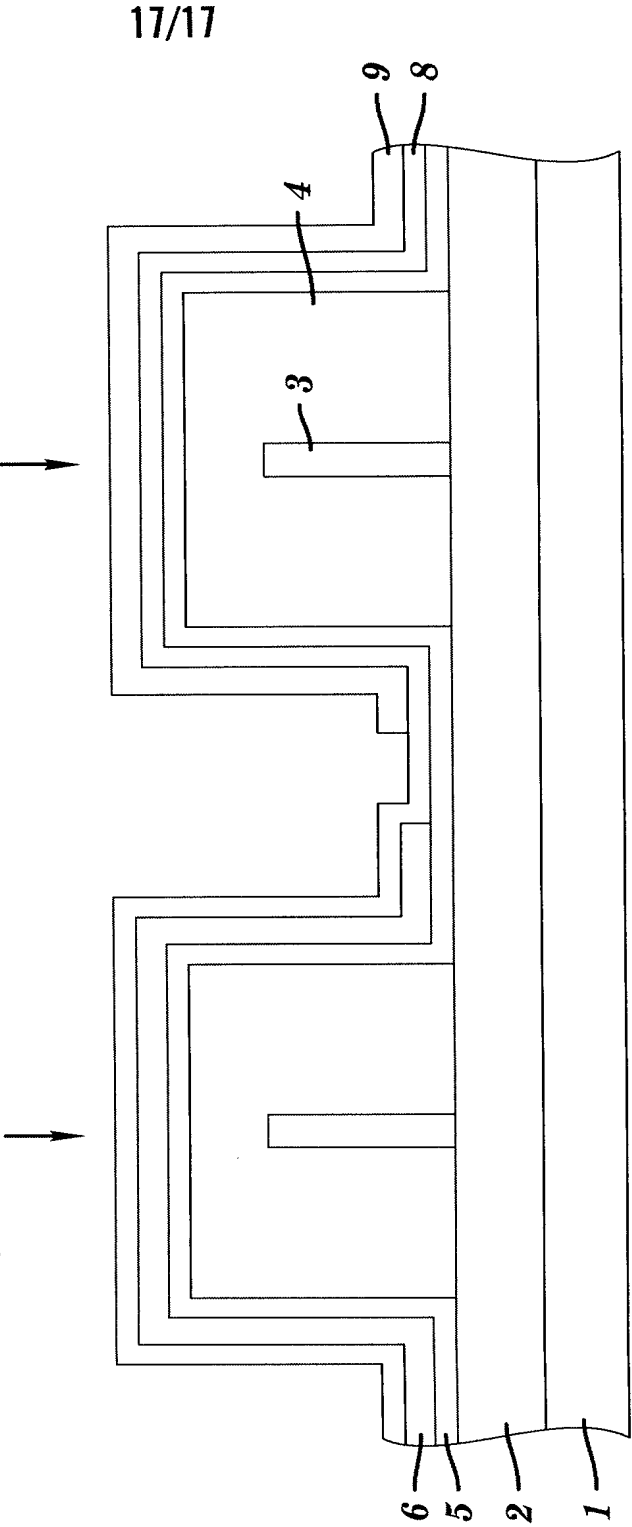


FIG. 17